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A2*
reference position for web 26 initially being omitted. In each reference position, a respective trigger signal is generated by computer 16 and sent to laser 6, and a laser pulse is correspondingly emitted by it. In this fashion, the discontinuous cut line 25 that is depicted is generated with laser 6 around specimen region 23 of interest. Specimen region 23 of interest is then joined to the surrounding specimen 4 only by the stable web 26.

In the Claims:

In accordance with 37 CFR § 1.121, please amend the claims as shown by the following rewritten versions of the same claims, as amended.

A3 *1*
x. (Amended) A method for laser microdissection of specimen regions (23) of interest of a specimen (4) that is mounted on a specimen holder (3), characterized by the following steps:

a) cutting, with a focused laser beam (7) having a defined cut width, along an incomplete cut line (25) largely enclosing the specimen region (23) of interest, such that there remains between the beginning and end of the cut line (25) a stable web (26) of defined width by way of which the specimen region (23) of interest is joined to the surrounding specimen (4); and

b) severing the web (26) with a laser pulse, directed onto the web (26), of a focused laser beam (7) having a cut width enlarged as compared to the previous cutting.

A4 *6*
x. (Amended) An apparatus for laser cutting of microscopic specimens (4) comprising:

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a microscope (1) having at least one objective (9) that defines an optical axis (10), for viewing of a specimen (4) having a specimen region (23) of interest, and having a laser (6) that generates a laser beam (7) and at least one optical system (13) that couples the laser beam (7) into the objective (9), wherein

a) a cut line control unit (2; 31) is associated with the microscope (1) in order to generate a relative movement between the laser beam (7) and the specimen (4) to achieve an incomplete cut line (25) largely enclosing the specimen region (23) of interest, such that there remains between the beginning and end of the cut line (25) a stable web (26) of defined width by way of which the specimen region (23) of interest is joined to the surrounding specimen (4); and

b) means for severing the web (26), with which the cut width of the laser beam (7) is enlarged and a single focused laser pulse is directed onto the web (26) and severs the web (26), are provided.

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~~15.~~ (Amended) The apparatus as defined in Claim ⁶~~6~~, wherein means for selection of the location of the web (16) by a user are provided.

Please add the following new claims:

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~~16.~~ (New) A method for laser microdissection of a specimen region of interest of a specimen, comprising:

(a) cutting with a laser beam along an incomplete cut line such that there remains a stable web by way of which the specimen region of interest is joined to the surrounding specimen; and

(b) severing the web with a laser pulse, directed onto the web, of a laser beam.

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17. (New) A method as set forth in claim 16, wherein step (b) comprises severing the web with a single laser pulse.

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18. (New) A method as set forth in claim 16, wherein step (a) comprises cutting with a focused laser beam and step (b) comprises severing the web with a laser pulse of a focused laser beam.

19. (New) A method as set forth in claim 16, wherein step (b) comprises severing the web with a laser pulse of a laser beam having a cut width enlarged as compared to step (a).

20. (New) A method as set forth in claim 16, wherein in step (a) there remains only one stable web.

21. (New) A method as set forth in claim 20, wherein the only one stable web remains between the beginning and end of a cut line.

22. (New) A method as set forth in claim 16, wherein the incomplete cut line largely encloses the specimen region of interest.

23. (New) A computer readable storage medium containing instructions to perform the method of claim 16.

24. (New) An apparatus for laser cutting of microscopic specimens comprising:

a microscope having at least one objective that defines an optical axis, for viewing of a specimen having a specimen region of interest;

a laser that generates a laser beam and at least one optical system that couples the laser beam into the objective; and

a control unit associated with the microscope which generates a relative movement between the laser beam and the specimen to achieve an incomplete cut line such that there remains a stable web by way of which the specimen region of interest is joined to the surrounding specimen, and to sever the web with a laser pulse directed onto the web.

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25. (New) An apparatus as set forth in claim 24, wherein the control unit severs the web with a single laser pulse.

26. (New) An apparatus as set forth in claim 24, wherein the incomplete cut line is formed by a focused laser beam and the web is severed using a focused laser beam.

27. (New) An apparatus as set forth in claim 24, wherein the web is severed with a laser pulse of a laser beam having a cut width enlarged as compared to a cut width used to achieve the incomplete cut line.

28. (New) An apparatus as set forth in claim 24, wherein after the incomplete cut line is achieved there remains only one stable web.

29. (New) An apparatus as set forth in claim 28, wherein the only one stable web remains between the beginning and end of a cut line.

30. (New) An apparatus as set forth in claim 24, wherein the incomplete cut line largely encloses the specimen region of interest.

31. (New) An apparatus as set forth in claim 24, wherein the microscope comprises an upright microscope.

32. (New) An apparatus as set forth in claim 24, wherein the microscope comprises an inverted microscope.

33. (New) An apparatus as set forth in claim 24, wherein the apparatus further comprises a displaceable X-Y stage.

34. (New) An apparatus as set forth in claim 24, wherein the apparatus further comprises a laser scanning device.

35. (New) An apparatus as set forth in claim 24, further comprising an autofocus apparatus.

36. (New) An apparatus as set forth in claim 24, further comprising an input unit to receive an instruction from a user which designates a cut line.

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37. (New) An apparatus as set forth in claim 24, further comprising an input unit to receive an instruction from a user which designates a width of a web.

38. (New) An apparatus as set forth in claim 24, further comprising an input unit to receive an instruction from a user which designates a location of a web.

39. (New) The method as defined in claim 1, wherein step b) comprises severing the web with a single laser pulse.
